

Appl. No. 09/864,836
Amdt. Dated February 22, 2006
Reply to Office Action of December 22, 2005

Amendments to the Drawings:

The attached replacement sheet (1) of drawings includes changes to Fig. 4B. These sheets replace the original sheet that included Fig. 4B. The changes to Fig. 4B involve making the length of L₂ shorter.

Attachment: Replacement Sheets (1)

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•• R E M A R K S / A R G U M E N T S ••

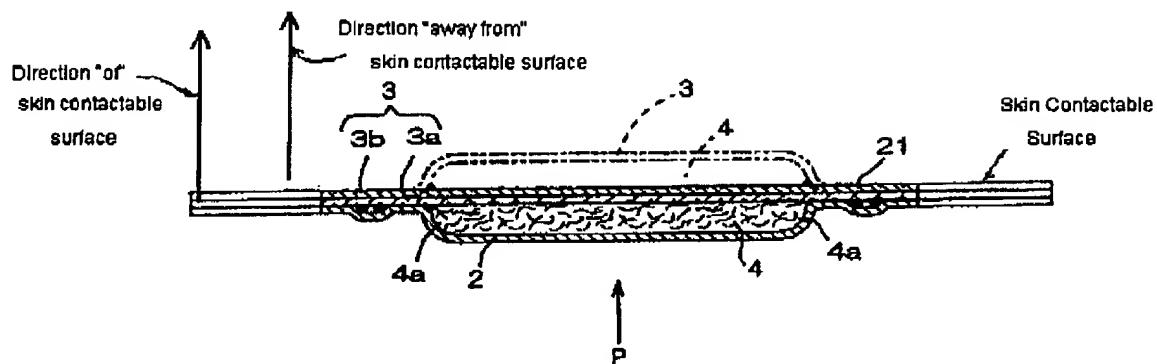
The Office Action of December 22, 2005 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks are believed to be sufficient to place the application into condition for allowance.

By the present amendment claim 1 has been changed back to the previous language which recited that "so that pressure exerted on said covering member by said liquid-absorbent core member will stretch the first zone in said direction away from the skin contactable surface."

In the Office Action the Examiner took the position that the recitation "direction of the skin contactable surface" was opposite to "direction away from the skin contactable surface." However, these recitations are believed to recite the same structure, only with respect to the viewer's point of reference. This point is illustrated in the following figure:

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FIG.2



In either case, Figs. 2, 3, and 7 illustrate the recited structural limitations and support the claim language.

Also by the present amendment a new Replacement Sheet of drawings, including an amended Fig. 4B is being submitted. The amended Fig. 4B has been changed to depict a smaller dimension L_2 than L_1 shown in Fig. 4A so as to comply with the Examiner's request that the drawings show that the ratio L_1/D_1 is greater than L_1/D_2 .

Entry of the changes to claim 1 and Fig. 4B are respectfully requested.

Claims 1-6 stand rejected under 35 U.S.C. §112, first paragraph.

This rejection is based upon the Examiner's position that the recitation "direction of the skin contactable surface" was opposite to "direction away from the skin contactable surface." However, these recitations are believed to recite the same structure, only with respect to the viewer's point of reference as noted above.

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In any event, claim 1 has been amended to recite the original language.

Claims 1-3 stand rejected under 35 U.S.C. §102(b) as being anticipated by European Patent Application No. 0 650 714 A1 to Divo et al. or, in the alternative, under 35 U.S.C. §103(a) as being obvious over Divo et al. in view of U.S. Patent No. 5,846,232 to Serbiak et al. and U.S. Patent No. 4,655,760 to Morman et al.

Claims 4, 8 and 9 stand rejected under 35 U.S.C. §103(a) as being obvious over Divo et al. alone or Divo et al., Serbiak et al. and Morman et al. in view of U.S. Patent No. 5,853,881 to Estey et al.

Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) as being obvious over Divo et al. alone or Divo et al., Serbiak et al. and Morman et al.

For the reasons set forth below it is submitted that all of the pending claims are allowable over the prior art of record and therefore, each of the outstanding rejections should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner had relied upon Divo et al. by referring to:

Figures 1-4, 6, 9-13, lines 31-39, portion(s) selectively “activated” while other remaining or second portion(s) remain unactivated, col. 1, lines 3-16, col. 3, lines 52-55, (it is noted “elongation as defined by the dictionary means “stretched out, lengthened), col. 8, line 6-col 9, line 6 (Note definition of “nonwoven” in Materials Handbook provided in a previous Office Action), col. 9, line 19-col 10, line 19, col. 11, lines 20-46, col.12, line 20-col. 13, line 5, col. 14, lines 28-30, col. 15, line 42 - col. 16, line 4, i.e. the cover is 26, the previous sheet is 24, the core is 28, the elastic members are 32, the first layer is 5 or 11, the second layer is 3 or 7 and 15.

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The Examiner stated that:

Figures 2-3, col. 3, lines 52-55, col. 11, lines 20-46, and col. 6, lines 31-39 disclose the ratio set forth on lines 11-19 of claim 1, i.e. teach the nonwoven, i.e. continuous fibers, are activated in a first zone, e.g. the continuous fibers are longer between bonding points due to gathering, and not activated in a remaining or second zone, i.e. the continuous fiber are shorted between bonding points because not gathered.

The Examiner moreover stated that:

It is the Examiner's first position that col. 6, lines 31-39 also teach the structure of the lines 21-23 of claim 1 and claim 2.

And

Lines 19-21 and 23 et seq of claim 1, as best understood, note new matter rejection supra, recite function or capability of the claimed structure.

The Examiner concluded:

The Divo device includes the same structure, see cited portions above. Therefore there is sufficient factual basis to conclude that the function or capability of the claimed structure is also inherent in the same structure of Divo.

Applicant's independent claim 1 recites, in part:

.. said covering member consisting of an elastically stretchable first layer and an inelastically stretchable second layer formed of a plurality of continuous fibers, said continuous fibers being fixed to said elastically stretchable first layer in bonding zones spaced apart from each other so that a ratio of L_1/D_1 , where L_1 is a length of said continuous fibers extending between a first pair of said bonding zones in a first zone on said covering member and D_1 is a distance in a straight line between said first pair of bonding zones in said first zone of said covering member is larger than a ratio of L_2/D_2 , where L_2 is a length of said continuous fibers extending between a second pair of said bonding zones in a second zone on said covering member and D_2 is a distance in a straight line between said second pair of bonding zones in said

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second zone of said covering member, whereby said covering member is more easily stretched in a direction away from the skin contactable surface in said first zone than in said second zone of said covering member, and said first zone being adjacent said liquid-absorbent core member and at least substantially coextensive with said liquid-absorbent core member, so that pressure exerted on said covering member by said liquid-absorbent core member will stretch the first zone in said direction away from the skin contactable surface without exerting any pressure on said discrete elastic members.

Divo et al. does not teach the structure required by applicant's independent claim 1.

The configuration of the first and second zones and their particular L/D ratios and stretchabilities in relationship to the discrete elastic members that are provided adjacent the leg-opening provides a unique, structurally-related function in applicant's invention.

As discussed in applicant's specification:

Only the range A of the backsheet 3 is deformed as indicated by chain lines in Fig. 2. The core member 4 shifts its position so as to protrude outwardly of the diaper 1 when the diaper 1 is put on a wearer's body with the topsheet 2 placed against the wearer's skin under pressure P exerted on the core member 4 (See Figs. 2 and 3). The pressure P is adequately dampened by the stretching of the range A to avoid exerting pressure on the elastic members 17 of the leg-openings via the ranges B. Thus, there is no apprehension that the desired fitness of the elastic members 17 around the wearer's legs might be adversely affected by the pressure P. In this way, the elastic members 17 associated with the leg-openings cooperate with the ranges B, which are less stretchable than the range A, so to maintain the desired fitness of the diaper 1 around the wearer's legs. It is unnecessary for such diaper 1 to use elastic members 17 associated with the leg-openings that have a relatively high stretch stress to compensate for the influence of the pressure P. With such diaper 1 according to the present invention, there is no anxiety that the elastic members 17 will have a relatively high stretch stress that might be unacceptably pressed around the wearer's legs.

In contrast to applicant's invention which requires the centrally located range A (first

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zone) to be have a larger L/D ratio than range B (second zone), Divo et al. depicts attaching the composite elastic member 37 to waist regions 34 and/or the areas 27 defining the leg openings (Col. 17, lines 31-35).

Such a teaching is completely opposite to applicant's invention.

The Examiner has relied upon each of Serbiak et al. and Morman et al. as teaching that:

...it is known in the diaper art to provide elasticity to a backsheet consisting of a composite elastic member wherein only the transverse middle zone part is extensible which the remainder is not.

In combining the teachings of Divo et al. with Serbiak et al. and Morman et al. the Examiner has taken the position that:

...to make the part of the composite which is activated or extensible only the transverse middle portion of the backsheet as taught by Serbiak et al and Morman et al on the Divo et al device would be obvious to one of ordinary skill in the art in view of the recognition that such would provide a backsheet where only a portion is activated which the remainder is not as desired by Divo et al.

The Examiner states that:

Lines 19-21 and 22 et seq of claim 1 recite function or capability of the claimed structure. The prior art combination teaches the same structure, see cited portions above. Therefore there is clear and convincing evidence that the claim's functional or characteristic recitation necessarily flows and/or is inevitable present in the teachings of the prior art of record.

The Examiner's analysis fails to properly consider the overall teachings of the prior art in view of applicant's claimed invention.

Divo et al. teaches that "activation" involves "permanently elongating or rupturing the

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layer 3" (column 8, lines 30-33) and that "stretching the non-woven will cause the fibers in the layer 3 to become disentangled to a certain extent or will cause a number of fibers to break."

It is clear that Divo et al. is not at all concerned with processing the composite so as to produce applicant's claimed L/D ratio. That is, if the fibers break or the entire layer 3 ruptures (such events which are allowed for in Divo et al.), the result is that the structure fails to meet applicants' claimed L/D ratio.

It is further noted that, Divo et al. does not teach the limitations for which the Examiner has relied upon Serbiak et al. and Morman et al., i.e., that the activated regions are limited to a central zone of the covering member of a diaper.

In fact the only actual description of selective activated regions taught by Divo et al. involve the physical deformation process which is used to develop the activated portions. These are illustrated as the pleats in the figures of Divo et al., which as the Examiner will note, do not limit the activated areas to a central zone as required by applicant's claimed invention.

The Examiner has found it necessary to rely upon Serbiak et al. and Morman et al. as teaching that:

...it is known in the diaper art to provide elasticity to a backsheet consisting of a composite elastic member wherein only the transverse middle zone part is extensible which the remainder is not.

A careful reading and analysis of each of Serbiak et al. and Morman et al. reveals that the teachings of these references are limited to providing a composite sheets for diapers which have longitudinal or transverse stretchability.

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The Examiner's attention is directed to Serbiak et al. at column 2, lines 12-14; column 2, line 65 through column 3, line 1; column 8, lines 19-22; column 10, lines 24-30; and column 11, lines 16-18.

From these passageways it is clear that Serbiak et al. only teaches that the extensible characteristics of the "base structure" involve longitudinal and transverse stretchability - inasmuch as it Serbiak et al. certainly teaches that if the "base structure" is attached to the absorbent core, the result will be that there is nonextensibility over the coextensive areas of the absorbent core and the "base structure."

Likewise, the Examiner's attention is directed to Morman et al. at column 8, lines 41-46 whereat Morman teaches that:

In the embodiment of FIG. 3, absorbent pad 24 may be bonded to inner liner 22 to help retain pad 24 in place but it is not bonded to the outer cover provided by the composite of webs 10 and 12 so as to permit expansion and contraction of the latter to provide a smooth and comfortable fit on the wearer.

As can be understood, from the above, the composite sheets of both Serbiak et al. and Morman et al. are: 1) stretchable at least in the transverse direction; and 2) will become "non extensible" (Serbiak et al.) or not subject to "expansion and contraction" (Morman et al.) is bonded to the respective absorbent members.

It accordingly follows that the teachings of Serbiak et al. and Morman et al. fail to teach a structure that meets the limitation of applicant's independent claim 1 that requires:

... so that pressure exerted on said covering member by said liquid-absorbent core member will stretch the first zone in said direction away from the skin contactable

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surface without exerting any pressure on said discrete elastic members.

Clearly, the characteristics and nature of the extensible and stretchable composite sheets of Serbiak et al. and Morman et al. are taught as being such that any force or pressure applied to the respective absorbent core would effect force or pressure on any adjacent leg elastic members.

Note, Serbiak et al. even teaches that if the extensive zones cover a sufficient area of the absorbent article, neither the leg elastics 40 or the waist elastics 38 may be required. That is because there is no isolation of the forces that are generated in the extensive zones - such forces will extend to and eliminate the need of the leg and waist elastic members.

Clearly there is no, what could be considered as "isolation" of leg elastic members from forces acting on the adjacent stretchable sheets of Serbiak et al. or Morman et al.

Thus, these references fail to render obvious this feature and limitation of applicant's claimed invention.

It accordingly, follows that the combination of Divo et al. with either Serbiak et al or Morman et al. fails to render obvious this feature and limitation of applicant's claimed invention.

Should the Examiner consider that the combination of prior art inherently renders applicant's claimed invention obvious, it is noted that inherency and obviousness are entirely different concepts. As held by the CCPA in *In re Shetty*:

That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is known. (*In re Shetty*, 195 USPQ 753 (CCPA 1977)

Based upon the above, it is submitted that Divo et al. alone or in combination with

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Morman et al. and Serbiak et al. does not anticipate or otherwise render obvious applicant's claimed invention.

The Examiner's reliance upon Estey et al. does not overcome the deficiencies in Divo et al, Morman et al. and Serbiak et al. noted above.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §102 as anticipating applicant's claimed invention. Moreover, the Examiner cannot properly rely upon the prior art under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicant's claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

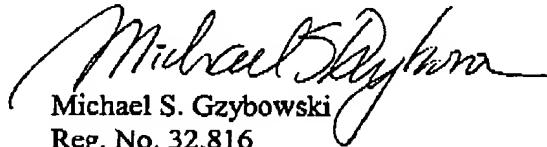
It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

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If upon consideration of the above, the Examiner should feel that there remains outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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